



THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of:

Jill DEIKMAN *et al.*

Appln. No.: 10/021,323

Filed: December 12, 2001

For: **Nucleic Acid Molecules and Other Molecules Associated with Plants**

Confirmation No.: 8906

Art Unit: 1631

Examiner: J. Martinell

16517.295

APPELLANT'S REPLY BRIEF

Mail Stop Appeal Brief – Patent
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

This is a reply to a new point of argument raised in the Examiner's Answer mailed October 6, 2004 ("Examiner's Answer").

1. The Examiner's New Points of Argument

a. The Rejection Raised Under 35 U.S.C. § 101

The Examiner's Answer alleges that "Appellants have asserted that claims 4-10 are separately patentable from claims 1,2, and 11-17, but have offered no specific reasons...." Examiner's Answer at page 6. Appellant respectfully disagrees.

The Examiner appears to argue that the utility of claims 4-10 is based solely on the utility of SEQ ID NO: 13. Applicants respectfully disagree. Claims must be considered as a whole in determining compliance with § 101. *Diamond v. Diehr*, 450 U.S. 175, 188, 209 U.S.P.Q. 1, 9 (1981). It is inappropriate to dissect claims and consider some elements while ignoring others. *Id.* Applicants respectfully submit that

the utility of claims 4-10 can not be based solely on the utility of the nucleic acid molecules, but must be based on the claimed subject matter as a whole. The Examiner's apparent assertion that the patentability of the claims is based on the utility of SEQ ID NO: 13 alone is improper.

The claimed plants exhibit the requisite utility quite apart from the utilities of the nucleic acid sequence alone. For example, transformed plants having, *inter alia*, a structural nucleic acid molecule comprising a nucleic acid sequence of SEQ ID NO: 13 or complements thereof, have utility independent of whether a function is known for the nucleic acid sequence. The specification discloses methods for the preparation of the transgenic plants as well as use in breeding programs to produce plants having genes of interest. *See, e.g.*, specification at page 15, lines 17-18 and page 52, line 17 through page 63, line 22. The specification further describes that the nucleic acid sequences can be used as markers. *See, e.g.*, specification at page 46, lines 18-23. The skilled artisan would recognize that such transformed plants can be more easily followed through a breeding program by the detection of the nucleic acid molecule. These utilities are immediately apparent for the claimed plants without the need for further research.

Other uses for the claimed plants include, for example, use in screening compounds such as herbicides. Specification at page 63, line 31 through page 65, line 21. For example, a compound can be provided to both a transgenic plant having a nucleic acid molecule comprising SEQ ID NO: 13 and a control plant lacking a nucleic acid molecule comprising SEQ ID NO: 13 and the effect of the compound on the plant can be monitored. Alternatively, the transgenic plant can have a nucleic acid molecule comprising SEQ ID NO: 13 in an antisense orientation and the effect of a compound can be compared to the effects on a control plant lacking the antisense nucleic acid molecule. Such a screen is analogous to a cell-based assay, which has legally sufficient utility. Thus, the use of a transgenic plant in such an assay is a legally sufficient utility.

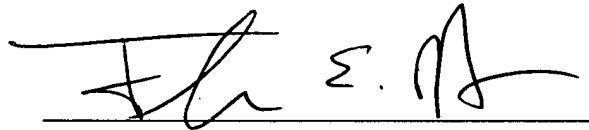
Accordingly, claims 4-10 are separately patentable from claims 1,2, and 11-17.

CONCLUSION

In view of the foregoing, it is respectfully requested that the Board of Patent Appeals and Interferences reverse the Rejections and that the subject application be allowed forthwith.

Respectfully submitted,

Date: December 6, 2004



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